Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 2/28/2022

Air Quality Forecast: This is the daily forecasted Air Quality Index (AQI) for each area provided by the PA Department of Environmental Protection. The AQI is based on PM2.5 or Ozone, whichever is forecasted to be higher.

Forecast Period	Pittsburgh Area	Liberty-Clairton Area	
Today Monday 2/28/22	PM2.5 Good 48 AQI	PM2.5 Good 48 AQI	
Tomorrow Tuesday 3/1/22	PM2.5 Good 50 AQI	PM2.5 Moderate 53 AQI	

Today's Forecast: A small area of high pressure rebuilding in for Monday will mean a partly to mostly sunny sky, but with colder air as temperatures may not reach above the freezing mark. Moderate air quality is possible, mainly in the afternoon and evening as winds go light.

See Page 2 for the Air Quality Index guide

Data provided by the PA Department of Environmental Protection

ACHD Air Dispersion 36-Hour Forecast: This is the dispersion forecast for Allegheny County starting from this morning through tomorrow afternoon. The atmospheric dispersion index is a rating of the atmosphere's ability to transport pollution away from its source and is based on emissions and weather. Better atmospheric dispersion can improve air quality.

Forecast Period		Atmospheric Surface Inversio Dispersion Index Strength		n Wind (dir, mph)	
Taller	Morning	Poor – 10	None	N/A	
Today	Afternoon	Fair — 36		N/A	
Taulaht	Evening	Very Poor – 2		N/A	
Tonight	Overnight	Very Poor – 6		N/A	
Tomorrow	Morning	Generally Good – 60	Slight to Weak	N/A	
Tomorrow	Afternoon	Good – 72		N/A	

See page 2 for the Atmospheric Dispersion Index guide and the daily Surface Temperature Inversion Report.

ACHD Remarks: The wind speed and direction forecast was not available from my usual source this morning.

Data provided by the National Weather Service (NWS) Fire Weather Planning Forecast and PIT NWS Products

Prepared by: WM Date: 2/28/2022 Time: 8:25 1

Guide to the Air Quality Index (AQI)					
Color	Description Meaning		AQI		
Red	Unhealthy	Everyone should limit exertion outdoors.	151 - 200		
Orange	Unhealthy for Sensitive Groups	oups Sensitive people should limit exertion outdoors.			
Yellow	Moderate	Extremely sensitive people may wish to limit outdoor exertion.	51 - 100		
Green	Good	No health impacts are expected in this range.	0 - 50		

Guide to the Atmospheric Dispersion Index						
Very Poor	Poor	Generally Poor	Fair	Generally Good	Good	Very Good
1 - 6	7 - 12	13 - 20	21 - 40	41 - 60	61 - 100	> 100

ACHD Surface Temperature Inversion Report:

This is the 7 AM surface-based temperature inversion report for Allegheny County.

This morning's surface inversion of <u>-- °C</u> with a depth of <u>--</u> is estimated to break at <u>--</u>. This surface inversion can be characterized as: <u>None</u>/ Slight / Weak / Moderate / Strong.

No upper inversion starting below ~ 1000 m is reported.

What does the Surface Temperature Inversion Report mean?

A surface temperature inversion is a weather pattern that stops mixing of the air near the ground, and pollution released into the air tends to remain at higher concentrations.

Surface temperature inversion conditions include how strong the surface inversion is (in °C), how high the inversion is above the surface (in meters), and when the inversion is expected to break (in Eastern Standard Time). Also included is whether an upper-level inversion or inversions exist, starting at about 1,000 meters.

<u>Surface Temperature Inversion Characterization</u>

0-0.9 C°: Slight 1-2.9 C°: Weak 3-4.9 C°: Moderate ≥5 C°: Strong



